

REMARKS

This is responsive to the Office Action mailed November 16, 2006.

Section 102 Rejections

Independent claims 1, 9, 20, and 21 remain in the application and are all rejected under 35 U.S.C. §102(b) as being anticipated by Crammond, U. S. Patent No. 5,485,873; Bielagus et al., U.S. Patent No. 5,937,923; and Swartwood et al., U.S. Patent No. 5,979,522; and are rejected under 35 U.S.C. §102(e) as being anticipated by Loth, U.S. Patent No. 6,561,885. Applicant respectfully traverses the rejections.

While the ground of rejection was broadly recited, addressing it requires considering each independent claim and each reference separately, because each combination of claim and reference is different.

Crammond

The rejections on Crammond (referring to Figure 7 and Col. 4, line 55 - 66) are based on the knife 60, the "knife carrier 58" (identified as the claimed "base"), the "counterknife 68" (identified as the claimed "wearshoe"), the "clamping member 65" (having an inclined surface 66), and the bolt 70.

Claims 1 - 5, 18, 19, and 27

These claims all require that there be a gap between the upper clamping member and the wearshoe that is greater than the thickness of the knife. No such gap is disclosed in Crammond. The Examiner asserts that there is such a gap, but the law requires that there be a disclosure in the reference or there is no anticipation.

Claims 7, 20, and 28

These claims all require that the wearshoe and base include “cooperatively interlocking portions adapted to substantially prevent movement of said base, relative to said wearshoe, in a first direction toward the knife and perpendicular to the axis of said bolt, said interlocking portions meeting so as to define an angle ϕ with respect to said first direction that is in the range 45 - 60 degrees.”

The rejections do not present a *prima facie* case against claims 7, 20, and 28 because there is no showing that Crammond has cooperatively interlocking features as required by the claims. Moreover, it is clear from Figure 7 that the structure 58 and the structure 68 meet each other at angles that are orthonormal (i.e., either parallel or perpendicular) to the axis of the bolt 70.

Claims 9 - 11, 17, 22, 23, and 25

These claims all require end plates such that shoulder portions of at least two shoulder bolts extend through one of the end plates into the base.

The rejections do not present a *prima facie* case against claims 9 - 11, 17, 22, 23, and 25 because there is no showing that Crammond uses shoulder bolts to mount an end plate to the knife carrier 58. In fact, Figure 3 shows that the knife carrier 26 (equivalent to the knife carrier 58 of Figure 7) is not bolted to the annular ring 4 at all; rather, as explained at col. 3, lines 20 - 33, it is bolted to a “knife holding location 8” by fasteners 28, which are not shoulder bolts, and which do not extend through the ring.

Additional Note Concerning the Relevance of Crammond

While the rejections lack foundation for at least the reasons described above, even

assuming that the claimed “base” reads on the “knife carrier 58,” and the claimed “wearshoe” reads on the “counterknife 68,” it should also be understood for the record that the terms “counterknife” and “wearshoe” are both terms of art and are not synonymous.

Bielagus

The rejections on Bielagus (referring to Figure 5 and col. 3, lines 31- 32; 45 - 46; and col. 6, lines 8 - 15) are based on the knife 36, the “drum segment 34” (identified as the claimed “base”), the structure identified by the Examiner as 42 (which is however actually described as being the “inside surface 42 of the drum segments 34”), and the “clamp wedge 76” and bolt 78.

Claims 1 - 5, 18, 19, and 27

These claims all require that the claimed upper clamping member be “cantilevered” from the base. A cantilever is “a projecting beam or member supported at only one end.” Webster’s Ninth New Collegiate Dictionary (1991 ed., page 203; copy enclosed). It is clear from Figure 3 that the clamping wedge 76 is not cantilevered because it is supported at two ends.

The claims all require that there be a gap between the upper clamping member and the wearshoe that is greater than the thickness of the knife. No such gap is disclosed in Bielagus. The Examiner asserts that there is such a gap, but the law requires that there be a disclosure in the reference or there is no anticipation.

Claims 7, 20, and 28

The claims all require a bolt mounting a wearshoe and base together at one side of the base, where the base and wearshoe “include cooperatively interlocking portions adapted to substantially prevent movement of said base, relative to said wearshoe, in a first direction toward

the knife and perpendicular to the axis of said bolt, said interlocking portions meeting so as to define an angle ϕ with respect to said first direction that is in the range 45 - 60 degrees.”

The rejections do not present a *prima facie* case against claims 7, 20, and 28 because there is no showing that Bielagus has cooperatively interlocking features as required by the claims. Moreover, it is clear from Figures 5 and 6 that the only possible interlocking features of the structure 34 and the structure 42 are orthonormal to the axis of the bolt mounting these structures together.

Claims 9, 10, 11, 17, 22, 23, and 25

These claims all require end plates such that shoulder portions of at least two shoulder bolts extend through one of the end plates into the base.

The rejections do not present a *prima facie* case because Bielagus does not disclose any means for attaching the structure 34 to the “annular ring 132” shown in Figure 9.

Swartwood

The rejections on Swartwood (referring to Figure 1) are based on the knife 12, the base 50 (which includes the pivot point 22), the bottom clamping portion 16 (identified as the claimed “wearshoe”), the top clamping portion 14, and the bolt 40.

Claims 1 - 5, 18, 19, and 27

These claims all require that there be a gap between the upper clamping member and the wearshoe that is greater than the thickness of the knife. Unlike the other two references, Swartwood discloses a gap. However, the claims further require that the apparatus be adapted to close the gap by elastically deflecting the upper clamping member. In Swartwood, the gap is closed by pivoting the lower clamping portion, not by deflecting the upper clamping member

downwardly to meet the knife. Accordingly, Swartwood does not anticipate claims 1 - 5, 18, 19, and 27.

Claims 7, 20, and 28

These claims all require that the wearshoe and base include “cooperatively interlocking portions adapted to substantially prevent movement of said base, relative to said wearshoe, in a first direction toward the knife and perpendicular to the axis of said bolt, said interlocking portions meeting so as to define an angle ϕ with respect to said first direction that is in the range 45 - 60 degrees.”

The rejections do not present a *prima facie* case against claims 7, 20, and 28 because there is no showing that Swartwood has cooperatively interlocking features as required by the claims. Moreover, it is clear from Figures 2 and 3 that the structure 16 and the structure 50 meet each other along a curved surface (at 22), so that there are no angles.

Claims 9 - 11, 17, 22, 23, and 25

These claims all require end plates such that shoulder portions of at least two shoulder bolts extend through one of the end plates into the base.

The rejections do not present a *prima facie* case against claims 9 - 11, 17, 22, 23, and 25 because there is no showing that Swartwood uses shoulder bolts to mount an end plate to the base 50. In fact, Swartwood does not have a ring assembly or end plates in the first place.

Additional Note

While the rejections lack foundation for at least the reasons described above even assuming that the claimed “wearshoe” reads on the “bottom clamping portion 16,” it should also be understood for the record that the term “wearshoe” is a term of art and that the bottom

clamping portion 16 is not a wearshoe (so, among other things, the gap required in claim 1 is not disclosed in Swartwood).

Loth

The rejections on Loth (referring to Figure 2 and col. 2, lines 15 - 33) are based on the knife 1.1, the “knife carrier 1.2” (identified as the claimed “base”), the “wearing [abrasion] plate 1.6” (identified as the claimed “wearshoe”), the “clamping plate 1.3” (identified as the claimed “upper clamping member”), and the “fastening screw 4” (having the “nut element 4.1”).

Claims 1 - 5, 18, 19, and 27

These claims all require that there be a gap between the upper clamping member and the wearshoe that is greater than the thickness of the knife. No such gap is disclosed in Loth. The Examiner asserts that there is such a gap, but the law requires that there be a disclosure in the reference or there is no anticipation.

Claims 7, 20, and 28

These claims all require that the wearshoe and base include “cooperatively interlocking portions adapted to substantially prevent movement of said base, relative to said wearshoe, in a first direction toward the knife and perpendicular to the axis of said bolt, said interlocking portions meeting so as to define an angle ϕ with respect to said first direction that is in the range 45 - 60 degrees.”

The rejections do not present a *prima facie* case against claims 7, 20, and 28 because there is no showing that Loth has cooperatively interlocking features as required by the claims. Inspection of Figure 2 of Loth shows no interlocking features inclined by the angle θ defined in the claims.

Claims 9 - 11, 17, 22, 23, and 25

These claims all require end plates such that shoulder portions of at least two shoulder bolts extend through one of the end plates into the base.

The rejections do not present a *prima facie* case against claims 9 - 11, 17, 22, 23, and 25 because there is no showing that Loth uses shoulder bolts to mount an end plate to the knife carrier 58. The bolts shown in Figure 3 of Loth appear to be ordinary bolts.

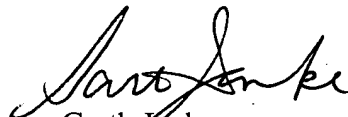
Additional Note Concerning the Relevance of Swartwood

While the rejections lack foundation for at least the reasons described above even assuming that the claimed “base” reads on the “knife carrier 58,” and the claimed “wearshoe” reads on the “counterknife 68,” it should also be understood for the record that the terms “counterknife” and “wearshoe” are both terms of art and are not synonymous.

Conclusion

It is respectfully submitted that all the claims are in condition for allowance, and the Examiner is therefore respectfully requested to pass the case to issue.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Garth Janke', written in a cursive style.

Garth Janke
Reg. No. 40,662
(503) 228-1841



canopic jar

fr. *canor* m;
sant sounding

dial Eng (14c)

fr. ONF, fr. *can*cant rim; *can*

niche 2: an

more square

TON, SLOPE

BEVEL 2: to

1: to pitch to

CLINEL 2:

ntare — more

manner

ically

2 a: the

phraseology

a set or stock

trite, or un-

use of pious

ot

AN

LL cantabile

nner — often

Cambridge

ity 2: a na-

ber produced

former-papal

ucumins — me-

ange flesh 2

upe; broadly

obs. contack

-can-tan-kan-

fr. *can*

of cantare

prising solos

tal accompa-

-tre (ch. *ch.*)

LL cantare

3: a female

fr. It. *can*

on a hike 1

or for cool-

toring silver

as an infor-

gers) 2: a

GGAR, VAGA-

fr. *Can*

Canterbury

ride a horse

r and slower

ted) (1578)

and for their

dēz (ME

harid; kan-

a prepar-

counterim-

nd a pivoting

nd — com-

Gk *kan*

meeting of

canicle \kanti-kəl/ *n* [ME, fr. L. *canticulum*, dim. of *canticum* song, *fr. cantus*, pp. of *canere* to sing] (13c) : SONG; specif. : one of several liturgical songs (as the Magnificat) taken from the Bible

canticle of Canticles (ca. 1934) : SONG OF SOLOMON

Canticles *n pl* but *sing* in constr (15c) : SONG OF SOLOMON

can-*le-na* \kanti-*l*-ə-nə, -ē-nə/ *n* [It. fr. L. song, *fr. cantillare*] (1740)

vocal or instrumental passage of sustained lyricism

can-*le-ver* \kanti-*l*-ə-vər also -ev-ər/ *n* [perh. fr. *cant* + *-le* + *lever*] (1667) :

a projecting beam or member supported at only one end; as a

bracket-shaped member supporting a balcony or a cornice **b** : ei-

ther of the two beams or trusses that project from piers toward each

other and that when joined directly or by a suspended connecting

member form a span of a cantilever bridge — see BRIDGE illustration

cantilever *vi* (1902) : to project as a cantilever *vt* **1** : to build as a

cantilever **2** : to support by a cantilever (a *~*ed shelf)

can-*til-late* \kanti-*l*-āt/ *vi* -lat-ed; -lat-ing [L. *cantillatus*, pp. of *cantillare*

to sing low, fr. *cantare* to sing — more at CHANT] (ca. 1828) : to recite

with musical tones — **can-til-la-tion** \kanti-*l*-ā-shən/ *n*

can-*ti-na* \kan-*t*-ē-nə/ *n* [AmerSp, fr. Sp. *cantena*, fr. It. wine cellar —

more at CANTEN] (1844) **1** Southwest : a pouch or bag at the pommel

of a saddle **2** Southwest : a small barroom. **SALCOON**

can-*ting* \kant-ing/ *adj* [cant] (1663) : affectively pious or righteous

can-*tle* \kant-*l*-ē/ *n* [ME *can*tel, fr. ONF, dim. of *cant* edge, corner —

more at CANT] (14c) **1** : a segment cut off or out of something : PART.

PORTION **2** : the upward-projecting rear part of a saddle

can-*to* \kan-*t*-ō/ *n pl* cantos [It. fr. L. *cantus* song, *fr. cantus*, pp. of

canere to sing — more at CHANT] (1590) : one of the major divisions of

a long poem

can-*ton* \kant-*l*-ən, -kan-*t*-ən/ *n* [MF, fr. OProv. fr. *can* edge, corner, fr.

canthus Iron tire — more at CANT] (1572) **1** obs : DIVISION, SECTION

2 [MF, fr. It. *canton*, *fr. cantio* corner, *fr. L. canthus*] : a small territorial

division of a country : as a : one of the states of the Swiss confedera-

tion; *b* : a division of a French arrondissement **3** : the top inner

quarter of a flag **4** : the dexter chief of a heraldic field — **can-**

ton-*al* \kant-*n*-əl, kan-*t*-ən-*l*/ *adj*

can-*ton* crepe \kan-*t*-ən, -n/ *n*, often *cap* **1** [Canton, China] (1865) : a

soft-thick dress crepe made in plain weave with fine crosswise ribs

can-*ton*-ese \kan-*t*-ən, -ez, -ēs/ *n pl* Cantonese (1857) **1** : a native or

inhabitant of Canton, China **2** : the dialect of Chinese spoken in and

around Canton — **Can-tonese** *adj*

can-*ton* flannel \kan-*t*-ən, -n/ *n*, often *cap* **1** [Canton, China] (ca. 1879)

can-*ton* net *l*

can-*ton*-ment \kan-*t*-ən-mənt, -tən-/ *n* (1756) **1** : usu. temporary quar-

ters for troops **2** : a permanent military station in India

Can-ton \kan-*t*-ən, -n/ *n* (ca. 1902) : ceramic ware exported from

China esp. during the 18th and 19th centuries by way of Canton and

including blue-and-white and enameled porcelain and various orna-

mented stonewares

can-*tor* \kant-*l*-ər/ *n* [L. singer, *fr. cantus*, pp. of *canere* to sing] (1538) **1**

chor leader : PRECATOR **2** : a synagogue official who sings or

sings liturgical music and leads the congregation in prayer — **can-**

to-*ri* \kan-*t*-ōr-ē-əl, -tōr-/ *adj*

can-*trip* \kan-*t*-rəp/ *n* [prob. alter. of *caltrop*] (1719) **1** chiefly Scot : a

witch's trick : SPELL **2** chiefly Brit : HOCUS-FOCUS **2**

can-*tus* \kant-*l*-əs/ *n pl* can-tus \kant-*l*-ūs, -tūs/ [ML] (1590) **1**

can-*tus* firmus \kant-*l*-əs, -fīr-məs/ *n* : the principal melody or voice

can-*tus* firmus \kant-*l*-əs, -fīr-məs/ *n* : the principal melody or voice

(1847) **1** : the plainsong or simple Gregorian melody orig. sung in

mission and prescribed as to form and use by ecclesiastical tradition **2**

a melodic theme or subject; esp. : one for contrapuntal treatment

can-*ty* \kant-*l*-ē/ *adj* [cant] dial Brit (1720) : CHEERFUL, SPRIGHTLY

can-*uck* \kə-*n*-ək/ *n* [prob. alter. of *Canadian*] (1835) : a Canadian and

esp. a French Canadian

can-*vas* also **can-*vass*** \kan-*v*-əs/ *n* [ME *canewas*, fr. ONF, fr. (assumed)

canabaceus hempen, fr. L. *cannabis* hemp — more at CANNABIS]

(13c) **1** : a firm closely woven cloth usu. of linen, hemp, or cotton

used for clothing and formerly much used for tents and sails **2** : a set

of sails : SAIL **3** : a piece of canvas used for a particular purpose **4**

can-*vas* also **can-*vass*** \kan-*v*-əs/ *n* : a piece of cloth backed or framed

as a surface for a painting; also : the painting on such a surface **b** : the

background, setting, or scope of an historical or fictional account or

narrative (the crowded ~ of history) **6** : a coarse cloth so woven as to

form regular meshes for working with the needle **7** : the canvas-

covered floor of a boxing or wrestling ring — **can-vas-like** \və-*s*-lik/

adj

can-*vas* *vi* -vased or -vassed; -vas-ing or -vass-ing (1556) : to cover, line,

furnish with canvas

can-*vas*-back \kan-*v*-əs-bək/ *n* (1782) : a No. American wild duck (*Ay-*

ya valisineria) characterized esp. by the elongate sloping profile of the

bill and head

can-*vass* also **can-*vass*** \kan-*v*-əs/ *vt* (1508) **1** obs : to toss in a canvas

sheet in sport or punishment **2** : to examine in detail; specif. : to

examine (votes) officially for authenticity **b** : DISCUSS, DEBATE **3** : to

go through (a district) or go to (persons) in order to solicit orders or

political support or to determine opinions or sentiments *vi* : to seek

orders or votes : SOLICIT — **can-vas-ser** also **can-vas-er** *n*

can-*vass* also **can-*vass*** \kan-*v*-əs/ *n* (ca. 1608) : the act or an instance of canvassing;

esp. : a personal solicitation of votes or survey of public opinion

can-*yon* \kan-*y*-ən/ *n* [AmerSp *cañon*, prob. alter. of obs. *Sp* *callón*, aug.

of *call* street, fr. L. *callis* footpath] (1837) : a deep narrow valley with

cover or top; as **a** : an overlying rock layer that is usu. hard to pene-

trate **b** (1) : PILEUS (2) : CALYPTRA **c** : the top of a bird's head or a

patch of distinctively colored feathers in this area **3** **a** : something

that serves as a cover or protection esp. for a tip, knob, or end (a bottle

~) **b** : a fitting for closing the end of a tube (as a water pipe or elec-

tric conduit) **c** : a layer of new rubber fused onto the worn surface of

a pneumatic tire **4** : an overlaying or covering structure (the galleried

~ of the old water tower is open to visitors) **5** : a paper or metal

container holding an explosive charge (as for a toy pistol) **6** : an up-

per limit (as on expenditures) : CEILING **7** : the symbol \cap indicating

the intersection of two sets — compare CUP **9** — **cap** in hand : in a

respectful, humble, or sometimes fearful manner.

cap *vi* capped; **cap-*ping*** (15c) **1** **a** : to provide or protect with a cap

b : to give a cap to as a symbol of honor, rank, or achievement **2** : to

form a cap over : CROWN (the mountains were capped with mist — John

Buchan) **3** **a** : to follow with something more noticeable or more

significant : OUTDO **b** : CLIMAX

cap-*abil*-ity \kə-*p*-ə-bil-ə-tē/ *n pl* -ties (1587) **1** : the quality or state

of being capable; also : ABILITY **2** : a feature or faculty capable of de-

velopment : POTENTIALITY **3** : the facility or potential for an indicated

use or deployment (the ~ of a metal to be fused) (nuclear ~)

cap-*able* \kə-*p*-ə-bəl, -kəp-ə-bəl/ *adj* [MF or LL; MF *capable*, fr. LL

capabilis, irreg. fr. L. *capere* to take — more at HEAVE] (1579) **1** : SUS-

CEPTIBLE (a remark ~ of being misunderstood) **2** obs : COMPREH-

ENSIVE **3** : having attributes (as physical or mental power) required for

performance or accomplishment (is ~ of intense concentration) **4**

: having traits conducive to or features permitting (this woman is ~ of

murder by violence — Robert Graves) (an outer coat of light color : of

reflecting solar heat — Current Biog.) **5** : having general efficiency

and ability **6** obs : having legal right to own, enjoy, or perform — **cap-**

able-ness \kə-*p*-ə-bəl-nəs/ *n* — **cap-*ably*** \-pə-blē/ *adv*

cap-*aci*-ous \kə-*p*-ə-shəs/ *adj* [L. *capax*, *capax* capacious, capable, fr. L.

capere] (1614) : containing or capable of containing a great deal *syn*

see SPACIOUS — **cap-*aci*-ously** *adv* — **cap-*aci*-ous-ness** *n*

cap-*aci*-tance \kə-*p*-ə-sat-ən(t)s/ *n* [capacity] (1909) **1** **a** : the prop-

erty of an electric nonconductor that permits the storage of energy as a

result of electric displacement when opposite surfaces of the noncon-

ductor are maintained at a difference of potential **b** : the measure of

this property that is equal to the ratio of the charge on either surface to

the potential difference between the surfaces **2** : a part of a circuit or

network that possesses capacitance — **cap-*aci*-tive** \-pə-sat-iv/ *adj* —

cap-*aci*-tive-ly *adv*

cap-*aci*-tate \kə-*p*-ə-sat-ē/ *vt* -tat-ed; -tat-ing (1657) **1** archaic : to

make capable : QUALIFY **2** : to cause (sperm) to undergo capacitation

cap-*aci*-ta-tion \kə-*p*-ə-sat-ē-shən/ *n* (1951) : the change undergone by

sperm in the female reproductive tract that enables them to penetrate

and fertilize an egg

cap-*aci*-tor \kə-*p*-ə-sat-ər/ *n* (1925) : a device giving capacitance and

usu. consisting of conducting plates or foils separated by thin layers of

dielectric (as air or mica) with the plates on opposite sides of the die-

lectric layers oppositely charged by a source of voltage and the electrical

energy of the charged system stored in the polarized dielectric

cap-*aci*-ity \kə-*p*-ə-sat-ē, -pas-tē/ *n pl* -ties [ME *capacite*, fr. MF *capa-*

ci-té, fr. L. *capacitat*, *capacitas*, fr. *capax*, *capax*] (15c) **1** : legal com-

petency or fitness **2** **a** : the potential or suitability for holding, storing,

or accommodating **b** : the maximum amount or number that can be

contained or accommodated (a jug with a one-gallon ~) (the audito-

rium was filled to ~) — see METRIC SYSTEM table, WEIGHT table **3** **a**

: an individual's mental or physical ability : APTITUDE **SKILL** **b** : the

faculty or potential for treating, experiencing, or appreciating (~ for

love) **4** : DUTY, POSITION, ROLE (will be happy to serve in any ~) **5**

: the facility or power to produce, perform, or deploy : CAPABILITY (a

plan to double the factory's ~) (stockpile of intercontinental mis-

siles . . . of a